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Listening in on the Conversations: An Overview of Digital Humanities Pedagogy

The topics of conversation among digital humanists—or “DHers”—over the last two years have been as broad as the scope of the digital humanities (DH) taxonomy and as varied as the definitions posed by its practitioners.¹ Some conversations focus “on building,” some on “hack,” some on “yack,” and others on “alt-ac” (Ramsay, “On Building” 243–45; Nowvieskie; Croxall). Fortunately, for those interested in introducing students to DH, other conversations address pedagogical concerns—teaching strategies, curricula development, and learning outcomes. (Unfortunately, there is no “-ack” synonymous with pedagogy to maintain the Suessian effect.) Such conversations would have proved helpful in the summer of 2012 as I prepped an undergraduate course in which I planned to introduce students to digital scholarly editing and encoding (TEI). As many do, I turned to the literature and found very few discussions of DH pedagogy—a fact validated by Stephen Brier’s “Where’s the Pedagogy?”—and even less on how to teach DH to undergraduates or within the English classroom. Without clear, practical guidelines, I managed to engage two classes in some semblance DH work—for which I found absolution in conversations about “digital experimentation,” “screwing around,” and “co-developing” (Fyfe 85; Ramsay, “The Hermeneutics” 7; Liu, “Digital” 20). From that point on, I have been listening in on the conversations about DH pedagogy in print, e-journals, tweets, blog posts, discussion forums, etc. What follows is an overview of select conversations “listened in on” with an analysis of how those conversations echo effective pedagogical practices.²

The benefits most often cited for incorporating instruction in DH tools and practices in undergraduate and graduate courses tend to fall into two general categories. The first centers on the institution, viewing the incorporation of the “digital” into undergraduate and graduate courses as a means to “save the humanities,” to ensure funding, and to give value to digital scholarship. “The digital humanities has the potential to revitalize what we do,” William Pannapacker writes, “and to justify continuing support from institutions, foundations, academic administrations, the government, and the general public” (“Stop”). Teaching DH, Claire Warwick explains, “gives the subject a sense of stability in institutional terms” and “helps establish our credibility with academic colleagues in other disciplines” while “also provid[ing] a firmer financial basis for the future than research

income" (209, 213). In this regard, the means justify the ends: the key to institutional funding and disciplinary standing is teaching.

The second benefit relates to students, viewing experience in DH as strengthening their employment prospects. Stephen Ramsay remarks, "Many students, over the years, have freely admitted to me that their primary motivation for studying the subject was linked to their job prospects after graduation" ("Programming" 228). As Pannapacker discovered through his conversations with an experiential-education program's directors, faculty, and students, employers value liberal-arts graduates but tend to most often hire those who are not "digitally challenged" ("No More"). Like Pannapacker's students who focus on internships in galleries, libraries, archives, museums, publishers, and foundations, Miriam Posner sees several potential employers for the undergraduates at UCLA "gravitat[ing] to digital humanities": "They could work for cultural-heritage institutions, or for technology companies in the expanding class of jobs that bridge software development and customer relations. That might mean serving as a Google "evangelist" who teaches people about products, or taking bug reports from users and turning those into development tasks for coders" (Parry). Similarly, Geoffrey Rockwell finds that "[t]here are a lot more jobs per capita now in the digital humanities than in traditional fields. This is in part because of all of the semi-academic and para-academic jobs in libraries, digital humanities centres, computing observatories and instructional technology centers" (248). In fact, the percentage of jobs classified as "Technology and Digital Media" in the English *JIL* increased from 7.7 in 2003–04 to 19.0 in 2012–13 (MLA).³

These benefits warrant the inclusion of DH instruction in courses and DH courses in programs. This year, the Andrew W. Mellon Foundation emphasized the importance of DH training with a \$1.9-million grant awarded to the University of Southern California to "train up-and-coming humanists" in digital scholarship (Howard).⁴ The grant's principal investigator Peter Mancall said that the program's training in technologies for research and dissemination will supplement graduate students' and post-docs' training in their traditional fields (Howard). "[M]any of the jobs that make the digital humanities desirable," Rockwell explains, "do require real technical expertise and often expertise with text encoding (which means an understanding of the collective wisdom gathered by the TEI)" (249). No longer will "a strong critical understanding of information technology" suffice, he adds: these jobs require practical experience with development and implementation (Rockwell 249). Contrary to the notion of millennials being "digital natives," studies like the one conducted by Northwestern's Eszter Hargittai and Brayden King "paint a picture not of an army of app-building, HTML-typing twenty-somethings, but of a stratified landscape in which some, mostly privileged, young people use their skills constructively, while others lack even basic Internet knowledge" (O'Neil).

As institutional support and student demand dictates, attention has turned to pedagogy and to developing best practices for training the next generation of digital humanists. No longer can “teaching and learning” remain “something of an afterthought,” as Brier suspects it has been “for many DHers”; more must “formally acknowledge,” as Brett Hirsch argues, that “pedagogy is at the heart of digital humanities” (Brier 390–91; Hirsch, “</Parentheses>” 16).⁵ The conversations on blending research and teaching in the classroom—a focus that Bryan Alexander and Rebecca Frost Davis find more common on liberal arts campuses—are entering the “new phase” that Tom Scheinfeldt foresees, “dominated not by ideas, but once again by organizing activities, both in terms of organizing knowledge, and organizing ourselves and our work” (Alexander and Davis 380; Scheinfeldt 58). Over the last two years, such conversations have centered on organizing general DH learning outcomes and teaching methodologies; conversations on applying those learning outcomes and teaching methodologies to English courses are emerging.

Those entrusted with training future digital humanists—undergraduate and graduate alike—agree that experience with DH technologies and practices is requisite. The concepts of “making” and “doing”—or “building” as Ramsay terms it—form the core of these discussions and the learning outcomes generated (Ramsay, “On Building” 245).⁵ Anne Burdick, et al. explain that DH participates in the values of the traditional classroom:

Both the traditional classroom and solitary study remain key features in the landscape of Digital Humanities learning. At the same time, many precedents for collaborative work in communities of letters and knowledge networks are enhanced by digital platforms in a fabric animated by opportunities for hands-on, project-based learning. Since antiquity, the dominant models of humanistic inquiry have favored an understanding of intellectual labor as solitary and contemplative, cut off from—and even superior to—manual labor and the realm of making or doing. Digital Humanities re-embeds these models in an augmented model of pedagogy that emphasizes learning through making and doing, whether on the level of the individual or the group. (125)

“Project-based learning” requires a skillset—both interpersonal and technical—that many students have not yet developed. After examining several graduate DH course syllabi, Melissa Terras determined that the collaborative work assigned in these courses significantly differed from traditional coursework and required a different skillset (“Disciplined” 80). With the collaborative nature of DH work in mind, Burdick, et al. includes “[a]bility to work collaboratively” among the six learning outcomes they outline (134). Terras also found that the courses required students “to be technically very adept” (“Disciplined” 80). Echoing this sentiment, Andrea Lawrence observes that students working on digital history projects need “explicit training” in “web or graphic design” (119).

Predictably, half of the learning outcomes outlined by Burdick, et al., focus on the development of technical skills: “[a]bility to integrate digitally driven research goals, methods, and media with discipline-specific inquiry”; “[a]bility to understand, analyze, and use data”; and “[a]bility to use design critically” (134). The remaining two involve applying these technical skills to assessing the work of others: “[d]evelop critical savvy for assessing sources and data” and “[a]bility to assess information and information technologies critically” (Burdick, et al. 134). Through “making” and “doing,” students ultimately gain a better understanding of DH work in humanities disciplines, Jeff McClurken believes: exposing undergraduate history students to the new research approaches afforded by technologies like text mining and geographic information systems (GIS) mapping better enables them to understand and interpret the scholarship generated using digital tools (81). In addition to forming the core of learning outcomes, “making” and “doing” figure heavily in the conversations of DH instructional methodologies.

In fact, they always have. In 2009, Alan Liu discussed how teaching with technologies actually “supplement[s] the usual closed discursive circuit of the instructor-talking-to-the-student (and vice versa) with an open circuit of the instructor-and-student talking to others” (20). In this “co-developing” model, students learn how to produce knowledge by collaborating with the teacher on project development, exemplifying the key components of DH: “practice, discovery, community.” What Liu terms “practice” and “discovery,” Ramsay simply calls “screwing around.” In 2010, he asked “whether we are ready to accept surfing and stumbling—screwing around, broadly understood—as a research methodology. For to do so would be to countenance the irrefragable complexities of what ‘no one really knows’” (Liu 20; Ramsay, “The Hermeneutics” 7). This methodology of experimentation—of teacher and student producing knowledge rather than delivering/receiving it—necessitates a pedagogical paradigm shift. Such a shift, however, results in a learning environment that can be “unsettling” for both teacher and student, Paul Fyfe added in 2011, because “it is all potentially up for grabs: methods, tools and the social dynamics of instruction” (85). “This situation,” he clarifies, “can also be a terrific opportunity to join students in shared projects of inquiry and explore new aspects of the discipline. We just need to imagine a pedagogy that transforms the uncertainties of the digital realm into the domain of questions. We need a pedagogy of digital experimentation” (85). In this regard, posing questions and exploring possibilities—characteristic of all humanities research—figures heavily in DH pedagogy.

More recent conversations share this focus on the methodology of experimentation in DH. As Craig Bellamy surmises,

Thus teaching in the digital humanities field should emphasise that computing is not simply a set of techniques to achieve a pre-

determined set of results. Computing in the humanities is a set of humanities *questions* to achieve a set of challenging *interpretations*. Digital resources and tools are made available to students through a series of choices by their creators, educators, and administrators, and making student [sic] aware of these choices is vital for facilitating active and critical engagement with them. (par. 6)

The very nature of this pedagogical approach cultivates the collaborative, “participatory learning” that Larry Swain calls for in Medieval Studies and the “tinker-centric experimentation” Jentery Sayers invites “in language and literature classrooms” (93; 284). Furthermore, the critical thinking fostered by working with digital tools and techniques complements traditional humanistic inquiry. Ramsay “continue[s] to think that what is gained when humanities students learn to think in the context of sophisticated computational tools is not only computational thinking, but also ‘humanistic thinking’” (“Programming” 239). In these estimations, integrating this DH methodology into humanities programs and curricula augments traditional learning outcomes.

Digital humanists have already begun discussing the integration of this methodology in programs and curricula. In reviewing several undergraduate DH programs with seemingly diverse aims, Tanya Clement discovered several points at which the general student learning outcomes converge: “critical thinking, commitment, community, and play” (387). “Until we consider digital humanities undergraduate pedagogy in terms other than training, and rather as a pursuit that enables all students to ask valuable and productive questions that make for ‘a life worth living,’” she argues, “digital humanities will remain unrelated to and ill defined against the goals of higher education” (Clement 372). Likewise, Terras’s survey revealed that graduate courses in different programs (humanities computing, English, and library and information studies) share a focus on the “digital text, and the theory, tools, and technologies which can be used for markup and analysis” (“Disciplined” 77–78). Because a high percentage of DH research involves text, she reasons, “it follows that teaching programmes should concentrate on this aspect” (Terras, “Disciplined” 78). It also follows that many conversations about teaching DH involve working with texts either existing in or converted to digital form. Malte Rehbein and Christiane Fritze discuss the “learning-by-project” approach they adopted for their week-long summer school course on digital editing using “a holistic approach” with post-graduates and early-career researchers (47, 78). In “making the case for teaching text analysis,” Stéfan Sinclair and Geoffrey Rockwell provide three models of assignments—of varying complexity—that encourage students explore research questions using a variety of text analysis tools (242, 246). Similarly, Astrid Ensslin and Will Slocombe provided their doctoral students opportunities to experiment with tools like W-Matrix and Wordle (151). Rather than building anew,

some apply this methodology to building upon existing digital projects in their classes. In a collaborative assignment developed by Natalie Houston, Lindsay Lawrence, and April Patrick, students “explore and critique the goals, design, and user experience of the *Periodical Poetry Index* and other digital projects” (227). Bellamy uses virtual research environments (VREs) like the *Perseus Digital Library* and *Thesaurus Linguae Graecae* to encourage students to consider the technical choices made by the developers and to critically interpret the projects’ framework. Regardless of student level, “making” and “doing” figure heavily in each of these cases of working with texts.

In other cases, this methodology proves equally effective in building digital projects not necessarily text-based. The guiding principle of Chris Johansen and Elaine Sullivan’s digital cultural mapping curriculum makes this apparent:

Building on traditionally-defined humanities based training, we have each identified a specific area of research, attempting not only to ground emerging digital technologies in traditional fields of humanistic inquiry, but also to combine the critical-thinking skills and intellectual openness characteristic of the humanities with the team-based problem solving and collaborative, hugely social nature of digital platforms. (122)

While the means may differ from text-based assignments, the inquiry, problem solving, and collaboration remain consistent. The same holds true for Allison Marsh’s museum studies assignment in which students used the “open source web-publishing platform” Omeka to develop an online exhibit (281; *Omeka*). Not only did students “engage in the questions confronting digital curation” as Marsh planned, but they also discovered the limitations of the open-source exhibition development tools available and the technical skills required to customize the design of online exhibitions (281, 282). Assignments like these – as well as those text-based assignments previously discussed – create the “authentic situation” that research in education advocates.

Interestingly, the ideas shared in these conversations on DH pedagogy reflect the active learning strategies promoted by education researchers like Ken Bain (“natural critical learning environment”) and L. Dee Fink (“significant learning experiences”) (Bain, *What* 18; Bain, “Popular” 12; Fink 7). In a natural critical learning environment, Bain explains,

[S]tudents encounter the skills, habits, attitudes, and information they are trying to learn embedded in questions and tasks they find fascinating – authentic tasks that arouse curiosity and become intrinsically interesting; “critical” because students learn to think critically, to reason from evidence, to examine the quality of their reasoning using a variety of intellectual standards, to make improvements while thinking, and to ask probing and insightful questions about the thinking of other people. (99)

Working on projects in this environment, students—like Marsh’s—confront “questions, issues, and problems” deemed “authentic” because they “are similar to those that professionals in the field might undertake” and “leaves [them] with a question: ‘What’s the next question?’ ‘What can we ask now?’” (Bain 100, 103). “The most effective teachers,” Bain contends, “use class time to help students think about information and ideas the way scholars in the discipline do. They think about their own thinking and make students explicitly aware of that process, constantly prodding them to do the same” (114–15). In this manner, the learning goes “beyond content mastery,” promoting “something more than understanding and remembering discipline-related information” (Fink 38, 7). Such learning contributes to students’ “life file,” according to Fink, “where they put the lessons from everyday life” from which they then draw “for all of their life decisions, questions, actions, and so on” (7). The lessons in this “life file” likely include those garnered from traditional liberal-arts courses through writing, research, and critical thinking, in addition to those technical and “computational thinking” skills acquired from DH work that Pannapacker found employers now seek (Ramsay, “Programming” 239; Pannapacker, “No More”). Broadly speaking, the “pedagogy of digital experimentation” discussed by digital humanists exemplifies the active learning techniques regarded as educational best practices (Fyfe 85). It engages students in authentic, inquiry-based tasks, working collaboratively with peers and teachers, “making” and “doing” in the same manner as DH professionals in the field.

Evidenced by these selected conversations, digital humanists have entered a new phase, organizing learning outcomes, pedagogical methodologies, and classroom applications. However, the “gap between research and pedagogy in our primary disciplinary sites—our digital humanities journals, conferences, and books—,” of which Brett Hirsch speaks, remains vast (16). On that note, I end this overview by joining many in the call for continuing these conversations on DH pedagogy—on programs, curricula, methodologies, practices, projects, and assignments. The more digital humanists who “practice what they preach” by sharing their classroom experiences—positive, negative, or mixed—through every means available—print, e-journals, tweets, blogs, forums, etc.—the more understanding we will have about creating authentic, active learning environments of “making” and “doing.” This special issue signifies another step in that direction.

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Notes

¹ In the recently published *Defining Digital Humanities*, Fred Gibbs discusses “the types of definitions of DH” and the editors include selected definitions of DH from the Day of DH for the years 2009 through 2012 (Gibbs 289–97; Terras, Nyhan, and

Vanhoutte 279–87). The definitions submitted for 2014's Day of DH are available at this year's site <<http://dayofdh2014.matrix.msu.edu/members/>>, and all the previous years' are available on the TAPoR wiki <http://www.artsrn.ualberta.ca/taporwiki/index.php/Main_Page>.

² I limited my selections to those conversations appearing in peer-reviewed print and e-journals (2012 to present). For those I follow on Twitter, consult my "Twitter handle": Leigh Bonds. For those in blogs, peruse Tanya Clement's <<http://www.tanyaclement.org>>, Ryan Cordell's <<http://www.ryancordells.us>>, Brian Croxall's <<http://www.briancroxall.net>>, Rebecca Frost Davis's <<http://www.rebeccafrost-davis.wordpress.com>>, Miriam Posner's <<http://miriamposner.com/>>, or Jentery Sayers's <<http://www.jenterysayers.com>>. For those in a forum, consult the ACH's (Association for Computers and the Humanities) "DH in the Classroom" page <<http://digitalhumanities.org/answers/forum/pedagogy>>.

³ Roopika Risam points out that DH is most often a secondary specialization "thrown in to your more traditional academic job ad" (Schuman). Whether those positions have a dual classification in the *Job Information List* (JIL) that has always been reflected in statistics published in the *Report on the MLA Job Information List* is unclear.

⁴ Other indicators this year include the ACH microgrants for projects in DH pedagogies and the variety of DH pedagogy training sessions offered this year locally (e.g. the "Doing DH" workshops at Duke held in February and the "Digital Humanities + Pedagogy" workshop at Fordham University in April), nationally (e.g. the pre-conference workshop at MLA "Getting Started in Digital Humanities" in January and the THATCamp sponsored by Richard Stockton College in June), and internationally (e.g. the course "Digital Pedagogy in the Humanities" in June at the Digital Humanities Summer Institute [DHSI] and the "Innovative Teaching Methods and Practices in Digital Humanities" workshop in July at the Digital Humanities 2014 conference).

⁵ Stephen Brier calculates the disparity between publications on DH research and teaching in *DHQ: Digital Humanities Quarterly* and in the NEH Digital Humanities Start-Up Grant proposal abstracts for the years 2007 through 2010 (391–92). Brett Hirsch does the same for *A Companion to Digital Humanities* and includes a discussion of how several leading publications in the field of DH (*Computers and the Humanities*, *Digital Humanities Quarterly*, *Digital Studies/Le champ numérique*, *Literary and Linguistic Computing*, and *TEXT Technology*) relegate "pedagogy" in favor of "research" (4–5). Both Brier and Hirsch point out Matthew Kirschenbaum mere mention of "pedagogy" in the conclusion of his "What is Digital Humanities and What's it Doing in English Departments?" (Brier 390–91; Hirsch 5). It is worth noting that Kirschenbaum provides two examples of teaching DH at the undergraduate and graduate levels in his earlier article "How Things Work: Teaching the Technologies of Literature."

⁶ In his frequently cited "On Building," Stephen Ramsay explains his use of the term: "All the *technai* of Digital Humanities—data mining, xml encoding, text analysis, GIS, Web design, visualization, programming, tool design, database design, etc.—involve building; only a few of them require *programming*, per se. Only a radical subset of the DH community knows how to code; nearly all are engaged in building something" (245).

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